Reported HIV infections in Kansas between 7-1-1999 and 12-31-1999

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Background

Beginning July 1, 1999, all confirmed positive HIV test results reported confidentially to the Kansas Department of Health and Environment (KDHE) included the name of the person tested, demographic information, and some risk factor information. Physicians, laboratories, and hospitals are required to report all positive HIV test results to the health department. Public counseling and testing sites may offer anonymous as well as confidential tests.

The KDHE uses the information gathered to determine trends in disease, set policies, develop interventions, assure access of patients to care and services, and distribute information that may be useful to the public.

HIV information included in this report refers to results reported to KDHE between July 1, 1999 and December 31, 1999. Data presented as HIV data **DO NOT** include information on individuals that were diagnosed with AIDS during the same period; information on those individuals is analyzed and presented separately.

Results of Analysis

Testing patterns

During the last six months of 1999 (after the implementation of the new reporting requirement), 6191 specimens were submitted to the KDHE Division of Health and Environmental Laboratories (DHEL) from Counseling and Testing Sites (CTS) that operate under contract with the KDHE. This is comparable with the 6235 specimens submitted during the same period of 1998, showing that the new reporting requirement does not appear to act as a deterrent for individuals to be tested.

CTS's are required to offer either a confidential test (i.e., including the name and address of the tested individual) or an anonymous test (where only a unique identifier for the individual is collected). For the first six months after the implementation of HIV reporting, the vast majority of tests submitted by CTS to the DHEL were confidential. In the first month after the implementation of the new regulation (July 1999) 69% of all specimens submitted by CTS's were confidential, and this proportion increased progressively to 89% in December 1999. No substantial changes in the composition of the CTS clients by gender or risk factor for HIV infection was observed after the implementation of the new law.

Case count and demographic characteristics

Between 7/1/99 and 12/31/99 there were 105 confidential reports to KDHE of individuals with a positive HIV test in Kansas. Although anonymous testing is available in Kansas, no positive HIV anonymous results were reported, and all the reported HIV positive results in this time period were confidential tests. Individuals with a positive HIV test reported during this period were tested at different time, as seen in table 1.

Table 1 - Date of testing* of the 105 HIV positive individuals reported in Kansas, 7/1/99-12/31/99

Date of testing	Number (%)
7/1/99-12/31/99	37 (35)
1/1/95-6/30/99	34 (32)
1/1/90-12/31/94	18 (17)
Before 1990	16 (15)

* date of testing = date of first known EIA test confirmed by Western Blot
Percentages do not add up to 100 due to rounding.

The rest of this analysis will only include the 37 persons with positive HIV tests performed and reported between 7/1/99 and 12/31/99.

Of the 37 individuals with a positive HIV test first performed and reported in the last half of 1999, 12 (32%) were tested at KDHE-funded public counseling and testing sites, the remainder at private physicians' offices and clinics. Table 2 compares individuals with positive HIV tests to those with AIDS by selected characteristics. HIV/AIDS surveillance data categorizes race and ethnicity together. "Hispanic " refers to those who self-identify as Hispanic of any race. "Other" includes Native Americans/Alaskan Natives, Asians/Pacific Islanders, those who identify as "mixed race", and those for whom no race information is obtained. Risk behaviors listed are mutually exclusive, that is a person will be categorized with only one risk behavior. If multiple risk behaviors are found, a hierarchical algorithm is used.

Table 2 - Selected characteristics of individuals in Kansas with HIV positive tests and AIDS diagnosis first established and reported between 7/1/99 and 12/31/99

Characteristic	HIV (N=37)		AIDS (N=58)	
	Count	%	Count	%
Sex				
Male	27	(73)	51	(88)
Female	10	(27)	7	(12)
Race/ethnicity				
White	16	(43)	38	(66)
African-American	13	(35)	12	(21)
Hispanic	8	(22)	6	(10)
Other	0		<5**	
Age				
Mean (average) age, years	33.6		37.6	
Age range, years	15-62		10-66	
Risk factors				
Male-male sex	14	(38)	35	(60)
Male-male sex and Injection drug use	<5**		<5**	
Injection drug use	7	(19)	8	(14)
Heterosexual sex	5	(14)	<5**	
Risk not identified	8	(22)	5	(9)
Other*	<5**		<5**	

** Includes pediatric cases, transfusion/organ recipients, hemophiliacs, and risks not otherwise classified*
*** Specific figures not given to protect confidentiality*

Over one fifth of the individuals with a positive HIV test have no identified risk factor (NIR) at this time, and that is within the range expected. No noticeable difference were observed between men and women with NIR. Further investigation of these reports can be expected to reduce the number of cases without an identifiable risk. There were two and a half times as many men as women and more whites than African-Americans with a positive HIV test. However, in comparison to reported AIDS cases for the same time period, there were relatively more women, African-Americans, and Hispanics with a positive HIV test than with AIDS. This difference did not reach statistical significance, possibly due to small numbers.

Geographical distribution

Information on the county the person was living in is known for 36 of the 37 individuals with a positive HIV test and 49 of the 58 individuals with AIDS diagnosed and reported in the last half of 1999, as shown in Table 3. This location may not reflect where the person was tested or

may be seeking care. To protect the confidentiality of those persons, information on county of residence is presented by HIV/AIDS case management region. A map of the case management regions is attached to the end of this report. The highest number of reports were for individuals living in areas with the highest population density, that is, Regions 1 and 2 (which include the Kansas City area), Region 4 (which includes Topeka), and Region 8 (which includes the Wichita area). Given the relatively small number of reports meaningful rates by region could not be calculated. There were no individuals with a positive HIV test performed and reported in the last half of 1999 living in Region 3 and no individuals reported with a positive HIV test or with AIDS living in Region 9.

Table 3 - Region of residence at the time of a positive HIV test or AIDS diagnosis, Kansas, 7/1/99-12/31/99

Region	HIV (N=37)	AIDS (N=58)
1	7	6
2	4	9
3	0	2
4	9	6
5	2	1
6	4	2
7	2	1
8	8	22
9	0	0
Unknown	1	9

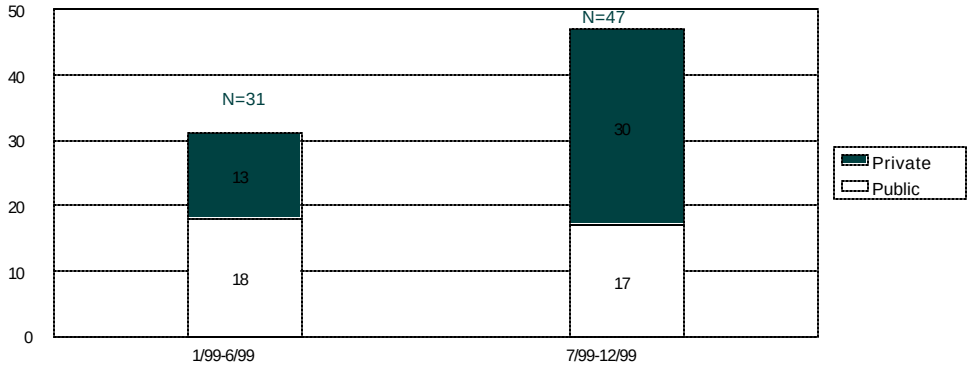
Counseling, referral, and partner notification activities

Disease Intervention Specialists (DIS) from the Sexually Transmitted Disease (STD) section of KDHE perform counseling and referral services for persons with STD's, including HIV and AIDS. For HIV-infected individuals, DIS attempt to interview all individuals reported to have a positive laboratory test for HIV from public sites and those reported from private sites, upon

agreement with the physician. All HIV-positive persons interviewed by DIS are given extensive prevention counseling to minimize the risk of transmission of infection to sexual and needle sharing partners. All HIV positive persons are referred to medical services, and other forms of assistance, including case management services (see next section for details). In addition, infected individuals are offered assistance with partner notification and counseling. For partner notification purposes, partners are defined as those with whom an HIV-infected individual had either sexual contact or shared injection drug equipment within twelve months prior to the individual's positive test result. After an interview with an HIV-infected individual, the DIS contacts and informs any sexual and/or needle sharing partners who can be located of their possible exposure to HIV, or, alternatively, assists the infected individual in notifying his/her sexual and/or needle sharing partners of their exposure to HIV. Efforts are also made to notify persons who have been a spouse of an HIV-infected person at any time within the 10 year period prior to the first positive HIV test. All partner counseling and referral services are provided in person and in a confidential setting. All partners are strongly encouraged to be tested for HIV.

DIS were assigned to interview a total of 78 HIV-infected individuals in Kansas in 1999, 22 of whom had been originally tested in other states. Forty-seven of the78 interviews were assigned in the last half of the year. A larger proportion of the requests for interviews came from private health care providers in the second half of 1999 than in the first part of the year, as shown in Figure 1.

Figure 1 - HIV Interviews assigned to DIS
Kansas, 1999



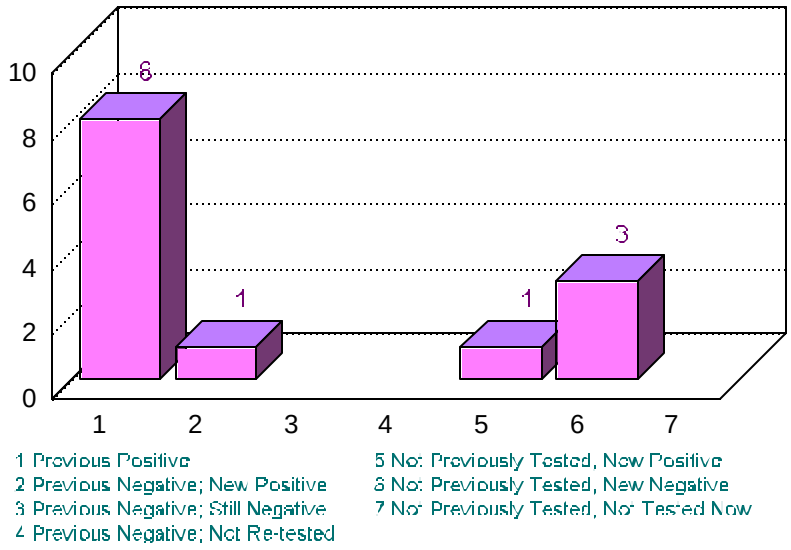
DIS were able to identify and facilitate notification of partners for 43 of the 78 assigned in 1999, compared with 33 out of 41 interviews assigned in 1998. Thirty-five interviews were not completed because HIV infected individuals refused an interview; the physician indicated that DIS assistance was not necessary; or HIV infected individuals could not be located for an interview. This percentage of interview coverage is similar to that of other STD's investigated by DIS. The

43 interviews conducted in 1999 generated 27 partner notifications and uncovered three previously unrecognized individuals who tested positive for HIV infection. Two of the three newly identified infections were the results of interviews originated from the 37 individuals tested and reported in the second half of 1999.

Of the 37 individuals with a positive HIV result tested and reported in the second half of 1999, 36 were assigned to DIS.[1] Six of the assigned cases were not interviewed because the physician indicated that no partner notification assistance was required. Four cases were not interviewed because the patient could not be located by the DIS. As of March 1, 2000, 19 interviews had been completed, one was being conducted, and six cases were still pending.

From the 19 completed interviews, 177 sexual and/or needle sharing partners were elicited. Of these 177 partners elicited, only 13 had sufficient locating information and were initiated for DIS follow up. (One individual interviewed claimed to have over 150 anonymous sexual partners. This HIV infected individual worked as a commercial sex worker outside

Figure 2 - Results of 13 DIS partner notifications - Kansas, 7/1/99-12/31/99



Kansas.) For the 13 partner notifications that were initiated, all 13 individuals were located and counseled of their exposure to HIV, and two new HIV infections were discovered as a result of these activities. The results of the partner notifications associated with newly identified HIV are shown in details in Figure 2.

[1] One case was not assigned as the patient had moved from Kansas.

Referral to services

One of the goals of HIV surveillance is to identify infected individuals so they can be offered medical services to prevent the development of AIDS and to control other complications of HIV infection. If a patient does not have the resources to purchase his or her own medical care or other needed services, federal and state support is available. There were 63 new persons enrolled into the Ryan White Title II (i.e., publicly funded) care services in the last half of 1999, 10 of whom were among the 37 newly identified HIV-infected individuals. The 63 new enrollees in the last half of 1999 compares with 32 in the last half of 1998 illustrating the increase in individuals seeking care through Ryan White Title II. One of the new cases of HIV infection discovered as a result of partner notification activities is also receiving services under Kansas Ryan White Title II. Medical coverage as of March 1, 2000 for 37 persons reported with HIV in the last half of 1999 in Kansas is summarized in Table 4.

Table 4 - Medical Coverage * for newly identified HIV-infected individuals reported in Kansas between 7/1/1999 and 12/31/1999.

Medical coverage	**Number of persons**	
	count	**percentage**
Ryan White, Title II	10	(27)
Medicaid	1	(3)
Private insurance	4	(11)
Other Government insurance	2	(5)
No coverage to date	3	(8)
Moved out of state	1	(3)
Unknown	16	(43)
TOTAL	37	(100)

** As of 3-1-2000*

Of the 16 persons with unknown coverage, 5 are residents of counties where Ryan White Title I coverage is available, but at this time it is not known whether any of them are enrolled in that program. Investigation to determine the medical coverage for the 16 individuals with unknown coverage is continuing.

Discussion

The information presented in this first report on the results of HIV reporting and associated service delivery contributes new information to our knowledge of HIV in Kansas. Since the diagnosis of AIDS is often made several years after the initial HIV infection, reports of HIV infections can function as an indicator of recent risk and transmission patterns and point to where primary HIV prevention efforts should be focused. Although the number of individuals with a positive HIV test identified and reported in the last half of 1999 is relatively small, comparing information from these reports with the 17 years of data collected on AIDS patients provides insight about differences between individuals more recently infected with HIV and individuals whose infection was acquired earlier and has progressed to AIDS. Care must be exercised in interpreting these data because there may be differences between the individuals who were the subject of these reports and the larger population of persons living with HIV. Nonetheless, certain patterns in the HIV reporting data merit our attention.

There were more men than women and more whites than African-Americans among people with a positive HIV test identified and reported between 7/1/99 and 12/31/1999. However, although the difference was not statistically significant, there was a higher proportion of women, people of color, and Hispanics among individuals reported with a positive HIV test than among those diagnosed with AIDS during the same time period. In addition, the number of women with a positive HIV test in the last half of 1999 was higher than the number of women diagnosed with AIDS during the same period. A similar trend is noted when comparing Hispanic to non-Hispanic HIV versus AIDS cases. These differences may reflect a change in demographic and/or risk factors associated with HIV infection in Kansas. Another possible explanation is that women and minorities are seeking care and are identified as having a positive HIV test earlier than other groups. This explanation cannot be excluded, although it is contrary to trends observed in other areas of the country. Alternatively, newer therapies may be more effective among women in slowing the progression from HIV to AIDS than in men. Finally, it is possible that these patterns are unique to this study period and the differences observed do not reflect trends that will be seen as more cases are reported. These hypotheses can be tested as more people with HIV are identified and reported and as the surveillance system gathers more information on individuals with HIV infection.

The number of HIV-positive individuals for whom there is no identifiable risk (NIR) exceeds that for AIDS cases. This is similar to what has been seen in other areas of the country. One possible explanation is that the longer a person has been identified as having HIV infection, the more likely he or she is to acknowledge mode of transmission information. Generally, the cumulative rate of NIR's for AIDS is less than 7%.

The increased number of requests for partner and referral services from public and especially private sources is noteworthy. Although some physicians and patients can manage these tasks without external assistance, these services are available through KDHE and are being increasingly used by patients and providers.

Three previously unrecognized HIV infections were discovered as a result of DIS follow-up of HIV infections reported in 1999. Two of those were from interviews of individuals first identified and reported in the last half of 1999. One of these was successfully referred to Ryan White Care Services. The partner notification and referral service directly helps persons at particular risk for acquiring HIV and provides counseling, testing and behavior modification skills. If infected, these partners are referred to care services. This primary and secondary prevention can be an important factor in slowing transmission. The shorter the time interval from an initial identification to the time of reporting, the more likely that DIS will be able to locate the index patient and partners for interview and follow up. This underscores the importance of prompt and timely reporting.

There is still a lag from the date an individual with HIV or AIDS is identified to the time a report is sent to KDHE. This lag time has implications for both prevention and treatment, since prevention, both of secondary HIV infections and of development of HIV into AIDS, and state-funded care services are dependent on timely surveillance. The median time lag[1] from the time of initial HIV test to the time of report for the 105 reports received in the last half of 1999 was five months, with a range of less than one month to 15 years. This lag time may reflect the fact that the first wave of reports sent after the new reporting law was enacted may have contained records for individuals who had been identified as having a positive HIV test some time before but were not reported because of the lack of a legal reporting requirement at the time the test was performed. Of the 105 individuals reported with HIV in the last half of 1999, after the new reporting law was enacted, only 37 had a first positive tests during that period. Among these 37 reports the median time from the test to reporting was one month, with a range of less than one month to six months. This may be an indication that the new reporting requirement may reduce the lag time between identification and reporting of individuals with HIV infection, although more data over a longer period of time are necessary to support this finding.

The increase in new enrollees in Ryan White Title II (32 during the last six months of 1998, compared to 63 during the last six months of 1999) is thought to be due to a combination of factors. Ten (16%) of the new clients enrolled to Ryan White Title II in the last half of 1999 were among the new HIV-infected individuals reported to KDHE. Increased outreach efforts during the year could also explain some of the increase. In addition, improved awareness in the infected community that these services are available and that the newer medications can take HIV disease from an invariably fatal infection to a chronic disease may increase the number of enrollees. In a 1996 Needs Assessment survey of infected persons, 7.9% of the people tested through state HIV counseling and testing sites indicated they had received information about the Kansas Care System in association with funded HIV Counseling and Testing. When the same question was asked in the same setting in 1999, 52.8% of the infected person's surveyed indicated they had received information about the Kansas Care System.

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[1] The median is a half-way mark; that is half of the test results were reported before and half after the median time lag.

This is the first analysis of reports of HIV infections and it is based on a relatively small number of records. This analysis shows that HIV reports are generating important information that is used for prevention, counseling, and referral activities. Despite the limitations of the available data, it appears clear that HIV reports can be used to define the extent and characteristics of the infection, to identify individuals with HIV infections, and to refer infected individuals to available counseling and care services. Additional analysis will be conducted regularly when more records become available.

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HIV Case Management Regional Map

HIV REGIONS in KANSAS